



# Recombinant Protein Technical Manual

## Recombinant Human E-Cadherin/CDH1 Protein (His Tag)(Active)

RPE5103

### Product Data:

**Product SKU:** RPE5103

**Size:** 100µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_004351.1

### Protein Information:

**Molecular Mass:** 77 kDa

**AP Molecular Mass:**

**Tag:** C-His

**Bio-activity:** Measured by the ability of the immobilized protein to support the adhesion of MCF-7 human breast adenocarcinoma cells. When cells are added to E-Cad coated plates (5 µg/mL, 100 µL/well), approximately 20%-40% of cells will adhere specifically after 90 minutes at 37 °C.

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Cadherin; CDH1;CAM 120/80;E-cadherin; CD324;CDHE;E-cad;E-Cadherin;ECAD;LCAM;UVO;Arc

## Immunogen Information:

**Sequence:** Met 1-Ile 707

## Background:

Cadherins are calcium-dependent cell adhesion proteins which preferentially interact with themselves in a homophilic manner in connecting cells, and thus may contribute to the sorting of heterogeneous cell type. E-cadherin (E-Cad), also known as CDH1 and CD324, is a calcium-dependent cell adhesion molecule the intact function of which is crucial for the establishment and maintenance of epithelial tissue polarity and structural integrity. Mutations in CDH1 occur in diffuse type gastric cancer, lobular breast cancer, and endometrial cancer. In human cancers, partial or complete loss of E-cadherin expression correlates with malignancy. During apoptosis or with calcium influx, E-Cad is cleaved by the metalloproteinase to produce fragments of about 38 kDa (E-CAD/CTF1), 33 kDa (E-CAD/CTF2) and 29 kDa (E-CAD/CTF3), respectively. E-Cad has been identified as a potent invasive suppressor, as downregulation of E-cadherin expression is involved in dysfunction of the cell-cell adhesion system, and often correlates with strong invasive potential and poor prognosis of human carcinomas.